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(21)Application number : 10-056109 (71)Applicant : RICOH CO LTD
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(54) SEMICONDUCTOR SUBSTRATE AND SEMICONDUCTOR LIGHT-EMITTING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a semiconductor substrate formed of a high-performance GaN based compound semiconductor which exhibits few crystal defects and distortions, a stable crystal quality, and can be manufactured with ease and with high yield.

SOLUTION: This semiconductor substrate is formed by stacking a mask 13 for selective growth on which circular pattern holes are disposed periodically on a crystal layer which turns into a selective growth causing layer 12 layered on the surface of a single-crystal substrate 11, and by selectively growing a GaN based compound semiconductor layer 15 through the circular pattern holes for selective growth.



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